

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ALBERT STITZ

Appeal 2007-4059
Application 10/148,000
Technology Center 3600

Decided: August 28, 2008

Before WILLIAM F. PATE, III, LINDA E. HORNER, and
JOHN C. KERINS, *Administrative Patent Judges*.

KERINS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Albert Stitz (Appellant) seeks our review under 35 U.S.C. § 134 of the final rejection of claims 1-31. We have jurisdiction under 35 U.S.C. § 6(b) (2002). An oral hearing in this appeal was held on May 15, 2008, with Robert W. Mueller, Esq., appearing on behalf of Appellant.

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A rejection of claims 5 and 8-11 under 35 U.S.C. § 102(b) as being anticipated by a patent to Scherer et al. was withdrawn in the Examiner's Answer, with the Examiner noting that a typographical error was the cause for these claims being rejected on this basis. All of claims 1-31, however, remain rejected on one or more grounds.

SUMMARY OF DECISION

We AFFIRM-IN-PART.

THE INVENTION

Appellant's claimed invention is to a process and apparatus for damping vibrations in a winding machine. The invention is directed to actively damping vibrational forces occurring in a vibration system with two cylindrical bodies rolling on each other, due to imperfections such as out-of-roundness or imbalance of one or both cylindrical bodies. The active damping is effected by obtaining vibrational force measurements for each rotation of one of the cylindrical bodies, and displacing an axis of rotation of one of the cylindrical bodies in response to the vibrational force measurements. In certain of the claims, the displacing of the axis of rotation is effected by additional energy fed from outside the vibration system.

Claims 1 and 14, reproduced below, are representative of the subject matter on appeal:

1. A process for damping vibrations in an apparatus for winding for material webs, the

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apparatus including at least two cylindrical bodies,
said process comprising:

positioning the at least two cylindrical bodies to
roll on each other to form a nip, whereby at least
one of imbalance and out-of-roundness of either of
the at least two cylindrical bodies form a system
capable of vibration; and

actively damping vibrational forces of the
vibration system in at least one of the at least two
cylindrical bodies through a displacing of an axis
of rotation of the at least one of the at least two
cylindrical bodies, in which the displacing results
from additional energy fed from outside of the
vibration system in response to a current one of a
plurality of vibrational force measurements made
per each rotation of the at least one of the at least
two cylindrical bodies.

14. An apparatus for damping vibrations in a
winding machine, comprising:

at least two cylindrical bodies being structured and
arranged for rotation about respective axes of
rotation;

displaceable bearings being coupled at ends of said
axis of rotation of at least one of said at least two
cylindrical bodies;

transducers being coupled to said displaceable
bearings;

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regulating units arranged to act on said
displaceable bearings; and

said regulating units being coupled to said
transducers to shift said displaceable bearings, and
thereby said axis of rotation, in response to a
current one of a plurality of vibrational force
measurements made per each rotation of said at
least one of said at least two cylindrical bodies by
said transducers.

THE REJECTION

The Examiner relies upon the following as evidence of
unpatentability:

Snygg	US 4,095,755	June 20, 1978
Crouse	US 4,171,106	Oct. 16, 1979
Scherer	US 5,743,483	Apr. 28, 1998

The following rejections are before us for review:

1. Claims 1-4, 6, 7, 12-18, 20-22, and 24-31 stand rejected under 35 U.S.C. § 102(b) as anticipated by Snygg.
2. Claims 1-4, 6, 7, and 12-31 stand rejected under 35 U.S.C. § 102(b) as anticipated by Scherer.
3. Claims 25 and 26 stand rejected under 35 U.S.C. § 102(b) as anticipated by Crouse.

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4. Claims 5 and 8-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable in view of Snygg.
5. Claims 5 and 8-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable in view of Scherer.

ISSUES

A first issue before us is whether Appellant has shown that the Examiner erred in determining that claims 1-4, 6, 7, 12-18, 20-22, and 24-31 are anticipated by Snygg. A second issue before us is whether Appellant has shown that the Examiner erred in determining that claims 1-4, 6, 7, and 12-31 are anticipated by Scherer. A third issue before us is whether Appellant has shown that the Examiner erred in finding that claims 25 and 26 are anticipated by Crouse. A fourth issue before us is whether Appellant has shown that the Examiner erred in concluding that claims 5 and 8-11 are rendered obvious by either Snygg or Scherer. In large part (with claim 14 being the one exception), these issues all turn on whether the Snygg, Scherer and Crouse patents disclose or suggest actively damping vibration that is generated in a system in which two cylindrical bodies roll on each other in a web winding apparatus, with the active damping being effected by measuring vibrational forces generated, and, in response to those measurements, displacing an axis of rotation of one of the two cylindrical bodies.

FINDINGS OF FACT

The following enumerated findings of fact (FF) are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

FF 1. The Snygg patent discloses a web winding apparatus that employs load sensing means 34 to measure and actively control the pressure at the nip between two rolls. The sensing means operates in concert with a regulating system 19 which includes a hydraulic circuit having a hydraulic cylinder 31 and hydraulic pump 32 which are independent of the rolls making up the vibration system, and which raise or lower one or more load rollers 6 as necessary to maintain a uniform nip pressure. (Snygg, Figs. 1-4; Col. 2, ll. 3-25).

FF 2. The load sensing means and regulating system in Snygg are not disclosed as providing active damping of vibration in the system, nor are they disclosed as being capable of providing such active damping.

FF 3. Vibration absorbers 11, 22, in the Snygg apparatus are passive damping devices that operate in reaction to vibration or other forces that they experience in operating the winding equipment. (Snygg, Figs. 1, 3, 4; Col. 1, l. 64-Col. 2, l. 2; Col. 2, ll. 26-32).

FF 4. The vibration absorber 11 in Snygg operates independently of the load sensing means. (Snygg, Figs. 1, 3)

FF 5. The Snygg patent discloses positioning both displaceable bearings and load sensing transducers at and coupled to the two ends of an axis of rotation of center load roll 6. (Snygg, Figs. 2-4; Col. 1, ll. 47-51; Col. 2, ll. 17-25).

FF 6. The Snygg patent does not disclose measuring for imbalance or out-of-roundness of a rotating cylindrical body, or using such measurements to actively damp vibrational forces between rotating cylinders.

FF 7. In the Snygg system, when a vibrational energy condition of the two cylindrical rolls changes, the change is manifested in a movement of piston rod 13 (in the case of vibration absorber 11) or piston rod 26 (in the case of vibration absorber 22). This movement results in an application of energy by the hydraulic fluid contained in the vibration absorber, and the reaction results directly from the momentary energy condition of the vibration system. (Snygg, Figs. 1, 3; Col. 1, l. 64-Col. 2, l. 2; Col. 2, ll. 26-32).

FF 8. In the Scherer patent, vibration in the system is damped by biasing rollers 110, 120, 130, into contact with the winding roll, and providing a particular level of hydraulic resistance to the retraction of these rollers. (Scherer, Fig. 1; Col. 5, l. 67-Col. 6, l. 6).

FF 9. The Scherer patent does not disclose actively damping vibrational forces by making a plurality of vibrational force measurements per each rotation of a cylindrical body, and does not disclose displacing an

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axis of one of the cylindrical bodies using energy from outside the vibration system.

FF 10. Safety valve 295 in Scherer is normally closed, and is capable of opening upon experiencing a predetermined extreme pressure in the fluid circuit caused by an abnormal pressure condition at the nip between the winding mandrel 20 and roller member 110. (Scherer, Fig. 3; Col. 6, l. 57-Col. 7, l. 7).

FF 11. Scherer does not disclose that safety valve 295 is capable of making ongoing vibrational force measurements to be used by regulating units to shift the roller in order to damp vibrations on an ongoing basis.

FF 12. Scherer does not disclose measuring for imbalance or out-of-roundness of one of the cylindrical bodies and using such measurements to actively damp vibration.

FF 13. Cylinder 30 in Scherer operates to move roller member 110 away from mandrel 20 as the wound material on the mandrel increases the diameter of that element, while maintaining the roller member at a predetermined bias force against the mandrel and the material wound thereon. (Scherer, Col. 4, ll. 15-48).

FF 14. The Crouse patent discloses an apparatus and process in which a winding roll rolls against two carrying drums. The horizontal spacing between the drums is controlled to be increased as the winding roll takes on additional material and increases in diameter. Crouse teaches that roll vibration tends to be damped by increased horizontal forces experienced on

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the winding roll coming about as a result of the spacing between the drums being increased. (Crouse, Figs. 3, 5; Col. 4, ll. 24-34).

FF 15. The controller 71 in Crouse operates to separate or increase the horizontal spacing between the two drums, in accordance with a predetermined control scheme. (Crouse, Fig. 4; Col. 4, ll. 39-41).

PRINCIPLES OF LAW

Anticipation is established when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention. *RCA Corp. v. Applied Digital Data Sys., Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984). Under principles of inherency, when a reference is silent about an asserted inherent characteristic, it must be clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991).

Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. [Citations omitted.] If, however, the disclosure is sufficient to show that the natural result flowing from the operation as taught would result in the performance of the questioned function, it seems to be well settled that the disclosure should be regarded as sufficient.

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In re Oelrich, 666 F.2d 578, 581 (CCPA 1981) (quoting *Hansgirg v. Kemmer*, 102 F.2d 212, 214 (CCPA 1939)).

Section 103 forbids issuance of a patent when the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art. *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S.Ct. at 1734 (*Graham* factors continue to define the inquiry that controls).

Patent application claims are given their broadest reasonable interpretation during the application process, for the simple reason that before a patent is granted the claims may be readily amended, for the purpose of distinguishing cited references, or in response to objections raised under § 112, as part of the examination process. *Burlington Indus., Inc. v. Quigg*, 822 F.2d 1581, 1583 (Fed. Cir. 1987). This broadest reasonable construction is to be assessed in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). Further, in making this assessment, embodiments or features present in the specification will not be

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read into the claims in determining their scope. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (*en banc*); *see also In re Trans Texas Holdings Corp.*, 498 F.3d 1290 (Fed. Cir. 2007).

ANALYSIS

Rejection of claims 1-4, 6, 7, 12-18, 20-22, and 24-31 under 35 U.S.C. § 102(b) in view of Snygg

Appellant argues that independent claims 1, 14, 25, and 27, are separately patentable from one another, and we will address each of these claims separately.

Appellant's Brief on Appeal purports to also separately argue the patentability of each dependent claim.¹ Under the heading for each of the dependent claims, however, Appellant simply restates the element(s) or limitation(s) found in these claims, and avers that such elements or limitations are not found in the Snygg patent. Presenting a statement which merely points out what a claim recites is not considered to be an argument for the separate patentability of the claims. 37 C.F.R. § 41.37(c)(1)(vii) (2007). We will therefore treat the dependent claims as being grouped with the respective independent claim from which each depends. To the extent that Appellant's bare assertions regarding the failure of the Snygg patent to disclose these elements would be regarded as legitimate arguments for the

¹ A separate heading for each claim is provided, a prerequisite under 37 C.F.R. § 41.37(c)(1)(vii), for separately arguing a claim or claims.

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separate patentability of the claims, Appellant does not persuasively demonstrate where any error lies in the Examiner's interpretation of Snygg as it relates to the elements or limitations found in those claims.

Claim 1

Appellant urges that the rejection of claim 1, a process claim, as being anticipated by Snygg is in error, because there is no disclosure in Snygg that a plurality of vibrational force measurements are made per rotation of one of the cylindrical bodies. Appellant also asserts that there is no disclosure of actively damping the vibrational forces in response to the measurements made, by displacing the rotational axis of at least one of the cylindrical bodies. (Appeal Br. 15).

The Examiner counters that the Snygg patent discloses the use of a load sensing means (34) that produces signals which are used to adjust the positions of axle bearing brackets (8) to achieve a uniform nip pressure between two rolls. (Answer 4). The Examiner acknowledges that Snygg does not explicitly disclose the taking of a plurality of vibrational force measurements per each rotation of one of the cylindrical bodies, asserting instead that this "is inherently done during the constant winding" (*id.*), and that, "[T]he reference does not have to explicitly state the limitation...". (Answer 10). The Examiner further cites to the use in Snygg of vibration absorbers 11, 22, asserting that these act in concert with the load sensing means to actively damp vibration. (*Id.*).

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The Snygg apparatus does disclose employing a load sensing means (34) to control the pressure at the nip between the rolls, using a regulating system (19) including a hydraulic circuit that is independent of the rolls and vibration system, to raise or lower one or more load rolls as necessary to maintain a uniform nip pressure. (FF 1). However, the Examiner has not pointed to, nor do we find in Snygg, any explicit teaching that this load sensing means is used to perform, or is capable of performing, active damping of vibration in the system. (FF 2).

The vibration absorbers (11, 22) in Snygg identified by the Examiner as components contributing to the active damping of vibrations, are, in actuality, passive dampers that simply react to and absorb forces experienced as the winding process ensues. (FF 3). Contrary to the assertion made by the Examiner (Answer 10), these vibration dampers operate independently of the load sensing means 34. (FF 4).

Snygg thus lacks an explicit teaching of a process that includes making a plurality of vibrational force measurements per each rotation of one of the cylindrical bodies, and actively damping those vibrational forces by displacing an axis of rotation of the cylindrical body in response to the measured forces. To the extent that these claim features are asserted to be inherent in the Snygg apparatus, we note that inherency may not be founded on possibilities or probabilities. *In re Oelrich*, 666 F.2d at 581. We find that the Examiner has not established a prima facie case that these claim

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elements are necessarily present in the Snygg apparatus, or are necessarily performed in the operation of the Snygg apparatus.

We are therefore persuaded that error exists in the rejection of claim 1 under 35 U.S.C. § 102(b) in view of Snygg. We will reverse the rejection of claim 1, and that of claims 2-4, 6, 7, 12, and 13, which depend from claim 1.

Claim 14

Claim 14 is directed to an apparatus for damping vibrations in a winding machine. Appellant presents essentially the same arguments as are presented in attempting to distinguish claim 1 from the Snygg disclosure.

Appellant first argues that the Snygg patent fails to provide any disclosure of making a plurality of vibrational force measurements per rotation, and fails to disclose actively damping such measured vibrations. (Appeal Br. 18). Unlike claim 1, however, apparatus claim 14 calls only for the provision of “transducers”, whose apparent desired or intended function is to make a plurality of vibrational force measurements per rotation. (Appeal Br., Claims Appendix). The language of claim 14, however, contains no positive limitations to that effect. Claim 14 further is devoid of any structural limitations that distinguish the apparatus from the Snygg apparatus in terms of providing active damping of vibrational forces. Appellant’s arguments in these respects are thus unavailing, as they are not commensurate in scope with the claims.

Appellant further contends that the Snygg patent does not disclose a device for measuring vibrational forces. (Appeal Br. 19). As noted above,

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Appellant, in claim 14, calls for the apparatus to have “transducers”, and does not further define any structure which would distinguish this element from the load sensing means (34) disclosed in Snygg, which is described as being capable of measuring a load on the load rolls (6). Further, Appellant acknowledges that at least one type of vibrational force that might be generated results from a temporary increase in forces at a nip between two rolls (Spec., p. 4-5, ¶[0015]). As such, the Snygg load sensors, which are expressly provided to measure forces at a nip between two rolls (FF 1), would indeed measure that type of vibrational force.

Appellant further asserts that the Snygg patent does not teach or suggest providing load sensing means at the ends of a roll, but rather discloses the placement of sensing means at the middle of a roll. (Appeal Br. 21). We note first that claim 14 does not contain such a positional limitation for the transducers recited therein. The claim requires displaceable bearings to be coupled at the ends of the axis of rotation of one cylindrical body, but requires only that the transducers be coupled to those displaceable bearings, without specifying any required position for the transducers. (Appeal Br., Claims Appendix). Furthermore, Snygg does disclose placing displaceable bearings and transducers coupled to the two ends of the axis of rotation of center load roll (6). (FF 5).

We are not persuaded that error exists in the Examiner’s rejection of claim 14 under 35 U.S.C. § 102(b) in view of Snygg. The rejection of claim 14, as well as that of claims 15-18, 20-22, and 24, that depend from claim 14

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and were not separately argued (or, alternatively, were not persuasively argued), will be affirmed.

Claim 25

Claim 25 is directed to a process for damping vibrations in an apparatus for winding material webs, which includes a step of shifting a rotational axis of at least one of two cylindrical bodies rolling on each other, in response to measurements of either imbalance or out-of-roundness, or both, in order to actively damp vibrational forces generated by the cylindrical bodies. (Appeal Br., Claims Appendix).

As discussed in greater detail in our findings and conclusions with respect to claim 1, *supra*, we are persuaded that the Snygg patent does not explicitly or inherently disclose means for actively damping vibrational forces generated by two cylindrical bodies rolling on each other. Further, we find no explicit or implicit disclosure in Snygg of measuring imbalance or out-of-roundness of at least one of the cylindrical bodies as a precursor to any active damping of vibrational forces. (FF 6).

We will not sustain the rejection of claim 25 under 35 U.S.C. § 102(b) in view of Snygg, nor the rejection of claim 26, which depends from claim 25, as anticipated by Snygg.

Claim 27

Claim 27 is a further apparatus claim, which requires the presence of “a device for actively damping the vibrational forces” in one of the two recited cylindrical bodies. (Appeal Br., Claims Appendix). This device, as

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claimed, includes regulators for applying energy independent of a momentary energy condition of the vibrating cylindrical body or bodies. (*Id.*).

The Examiner's position is that the Snygg device is not structurally different from the apparatus of claim 27, and that the hydraulic fluid utilized by the vibration dampers of Snygg applies energy independently of a momentary energy condition of the vibration system to effect damping thereof. (Answer 13). Appellant argues, in part, that the vibration absorbers and the hydraulic fluid employed by the vibration absorbers in Snygg form part of the vibration system of Snygg, and therefore the energy supplied by the hydraulic fluid can not be applied independently of a momentary energy condition of the system. (Appeal Br. 28). The Examiner apparently agrees that the hydraulic fluid used by the vibration absorbers of Snygg form a part of the vibration system as a whole. (Answer 13).

We are persuaded by Appellant's analysis. Any energy applied by the hydraulic fluid in the vibration absorbers 11, 22, of Snygg, is as a direct result of, and is in reaction to, the momentary energy of the vibration system. (FF 3). That is, when a vibrational energy condition of the two cylindrical rolls changes, the change is manifested in a movement of piston rod 13 (for vibration absorber 11) or piston rod 26 (for vibration absorber 22), which brings about an application of energy by the hydraulic fluid contained in the vibration absorber. This reaction is not independent of the

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momentary energy condition of the vibration system, rather it is a direct byproduct thereof. (FF 7).

We find that the apparatus of claim 27 is not anticipated by the disclosure of the Snygg patent, and will reverse the rejection of claim 27, and claims 28-31 depending therefrom, under 35 U.S.C. § 102(b) in view of Snygg.

Rejection of claims 1-4, 6, 7, and 12-31 under 35 U.S.C. § 102(b) in view of Scherer

Appellant argues that independent claims 1, 14, 25, and 27, are separately patentable from one another (Appeal Br. 48-60), and we will address each of these claims separately.

As with the rejection of the claims in view of Snygg addressed above, Appellant's Brief on Appeal purports to also separately argue the patentability of each dependent claim. Under the heading for each of the dependent claims, however, Appellant simply restates the element(s) or limitation(s) found in these claims, and avers that such elements or limitations are not found in the Scherer patent. Presenting a statement which merely points out what a claim recites is not considered to be an argument for the separate patentability of the claims. 37 C.F.R. § 41.37(c)(1)(vii)(2007). We will therefore treat the dependent claims as being grouped with the respective independent claim from which each depends. To the extent that Appellant's bare assertions regarding the failure

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of the Scherer patent to disclose these elements would be regarded as legitimate arguments for the separate patentability of the claims, Appellant does not persuasively demonstrate where any error lies in the Examiner's interpretation of Scherer as it relates to the elements or limitations found in those claims.

Claim 1

The Examiner asserts that active damping of vibrational forces is provided in the Scherer apparatus by displacing the axis or axes of rollers 110, 120, and 130 through operation of a hydraulic cylinder(s) and piston(s). (Answer 14). It is further asserted that the displacing of the roller or rollers is in response to a current one of a plurality of vibrational force measurements made per each rotation, which is an inherent characteristic of controlling the rollers 110, 120, 130, during the constant winding process. (*Id.*).

Appellant concurs that the Scherer apparatus employs these roller members 110, 120, 130, in order to control or prevent vibrations during winding. (Appeal Br. 49). Appellant argues that vibration control is effected by biasing the roller members against the winding roll. (*Id.*). Appellant further asserts that the sole reason for displacing the rollers in Scherer is to adjust for the increasing diameter of the wound roll. (Appeal Br. 51). Appellant contends that, in any event, the Scherer system does not employ active vibration damping in response to current vibrational force measurements. (*Id.*).

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We agree with Appellant on this front. While the Examiner has pointed to a disclosure that the positioning and control of the rollers is performed such that there is sufficient hydraulic resistance to retraction of the rollers, so that vibration is either prevented or substantially reduced (Answer 14; FF 8), that falls far short of a disclosure of active damping of vibrational forces as claimed. Specifically, we find no disclosure in Scherer of actively damping vibrational forces by making a plurality of vibrational force measurements per each rotation of the cylindrical body, and displacing, using energy from outside the vibration system, an axis of at least one of the rotating cylindrical bodies. (FF 9). We are further not persuaded by the Examiner's observations and reasoning that such aspects are inherently performed in the operation of the Scherer apparatus.

We will reverse the rejection of claim 1, and of claims 2-4, 6, 7, 12, and 13 depending therefrom, under 35 U.S.C. § 102(b) in view of Scherer.

Claim 14

Appellant argues that the Scherer patent fails to provide a disclosure of transducers coupled to displaceable bearings, with the transducers being capable of making a plurality of vibrational force measurements per rotation, and fails to disclose actively damping such measured vibrations. (Appeal Br. 53-54). The Examiner cites to safety valve 295 in fluid circuit 200 shown in Figure 3 of Scherer as corresponding to the claimed transducers. (Answer 15). The safety valve in Scherer is disclosed as being normally closed, and is capable of opening when a predetermined extreme pressure

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condition is experienced as a result of an abnormal pressure condition at the nip between the winding mandrel 20 and the roller member 110. (FF 10). The Examiner asserts that this safety valve is coupled to displaceable bearings 68 and regulating units 30, 50, in order to shift the bearings in response to vibrational force measurements. (Answer 15).

We find the basis for the rejection to be lacking. Claim 14 calls for the apparatus to have transducers (plural), to be coupled to displaceable bearings at the ends of one of the cylindrical bodies, and regulating units to be coupled to the transducers operable to shift the bearings in response to measurements made by the transducers. The Scherer patent does not disclose the provision of more than one transducer, even if we are to accept the Examiner's contention that the safety valve can be regarded as a transducer. We further find that Scherer lacks any teaching that the safety valve is capable of making ongoing vibrational force measurements, from which the regulating units may shift the bearings, rather Scherer discloses only that it is operable to open from a normally closed position when a predetermined excessive pressure is experienced. (FF 11).

We will not sustain the rejection of claim 14 under 35 U.S.C. § 102(b) as anticipated by Scherer. The rejection of claims 15-18, 20-22, and 24, that depend from claim 14, will also not be sustained.

Claim 25

As discussed in greater detail in our findings and conclusions with respect to the Scherer patent and claim 1, *supra*, we are persuaded that the

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Scherer patent does not explicitly or inherently disclose active damping of vibrational forces generated by two cylindrical bodies rolling on each other. Further, we find no explicit or implicit disclosure in Scherer of measuring imbalance or out-of-roundness of at least one of the cylindrical bodies as a precursor to any active damping of vibrational forces. (FF 12). Claim 25 specifically requires that these functions or steps be performed in the claimed process.

We will not sustain the rejection of claim 25 under 35 U.S.C. § 102(b) in view of Scherer, nor the rejection of claim 26, which depends from claim 25, as anticipated by Scherer.

Claim 27

Claim 27 requires the presence of “a device for actively damping the vibrational forces” in one of the two recited cylindrical bodies. (Appeal Br., Claims Appendix). This device, as claimed, includes regulators for applying energy independent of a momentary energy condition of the vibrating cylindrical body or bodies. (*Id.*).

The Examiner’s position is that the Scherer device is not structurally different from the apparatus of claim 27. (Answer 16). Appellant points out that the components relied upon by the Examiner in asserting that the claim is anticipated operate as a passive system, and the piston/cylinder combination asserted by the Examiner to be a regulator operates to change the position of a roller to accommodate the increasing diameter of the roll on which material is being wound, but does not actively damp vibrational

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forces. (Appeal Br. 59; FF 13). We agree with Appellant that these components of Scherer do not expressly or inherently disclose a device for actively damping vibrational forces which employs regulators to apply energy independent of the momentary energy condition of the vibrating system, as called for in claim 27.

We find that the apparatus of claim 27 is not anticipated by the disclosure of the Scherer patent, and will not sustain the rejection of claim 27, and of claims 28-31 depending therefrom, under 35 U.S.C. § 102(b) in view of Scherer.

Rejection of claims 25 and 26 under 35 U.S.C. § 102(b) in view of Crouse

The Crouse patent discloses a process in which a winding roll rolls against two carrying drums. The spacing between the drums is increased in a predetermined and controlled manner to accommodate the increasing size of the winding roll. Crouse states that roll vibration tends to be dampened by increased horizontal forces imposed by the carrying drums on the winding roll, the increased horizontal forces coming about as the spacing between the drums is increased. (FF 14). The Examiner cites to the presence of a controller employed in the Crouse device as evidencing that the device performs active damping of vibration. (Answer 17).

Appellant argues that Crouse does not disclose a process, as set forth in claim 25, in which the rotational axis of the one of the cylinders is shifted in response to measurements of imbalance and out-of-roundness, to effect an

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active damping of vibration. (Appeal Br. 86). We agree. The controller in Crouse operates to increase the spacing between two carrying drums, and Crouse discloses that this is done in a predetermined manner. (FF 15). The Examiner has not pointed to, nor can we find in Crouse, a disclosure that measurements of either imbalance or out-of-roundness are made and used to change the position of one or both of the carrying drums.

We will not sustain the rejection of claims 25 and 26 under 35 U.S.C. § 102(b) as anticipated by Crouse.

Rejection of claims 5 and 8-11 under 35 U.S.C. § 103(a) in view of Snygg

Claims 5 and 8-11 depend either directly or indirectly from independent claim 1. In rejecting these claims under 35 U.S.C. § 103(a), the Examiner contends that, even though the features set forth in the claims are not expressly or inherently disclosed in Snygg, the features would have been obvious, for various reasons, to a person of ordinary skill in the art. (Answer 35-38).

The Examiner's reasoning in rejecting these claims fails to address the deficiencies, discussed *supra* with respect to claim 1, of the Snygg patent in disclosing or suggesting a process that includes making a plurality of vibrational force measurements per each rotation of one of the cylindrical bodies, and actively damping those vibrational forces by displacing an axis of rotation of the cylindrical body in response to the measured forces, as is set forth in these claims, as a result of their dependency from claim 1.

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Accordingly, we will not sustain the rejection of claims 5 and 8-11 under 35 U.S.C. § 103(a) in view of Snygg.

Rejection of claims 5 and 8-11 under 35 U.S.C. § 103(a) in view of Scherer

Just as with the rejection discussed immediately above, the Examiner's reasoning in rejecting claims 5 and 8-11 in view of Scherer fails to address the deficiencies, discussed *supra* with respect to claim 1, of the Scherer patent in disclosing or suggesting a process in which vibrational forces are actively damped by making a plurality of vibrational force measurements per each rotation of the cylindrical body, and displacing, using energy from outside the vibration system, an axis of at least one of the rotating cylindrical bodies, as set forth in these claims, as a result of their dependency from claim 1. Accordingly, we will not sustain the rejection of claims 5 and 8-11 under 35 U.S.C. § 103(a) in view of Scherer.

CONCLUSIONS

We find that reversible error has been shown to exist in the rejection of claims 1-4, 6, 7, 12, 13, and 25-31 under 35 U.S.C. § 102(b) as anticipated by Snygg.

We find that no reversible error has been shown to exist in the rejection of claims 14-18, 20-22, and 24 under 35 U.S.C. § 102(b) as anticipated by Snygg.

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We find that reversible error has been shown to exist in the rejection of claims 1-4, 6, 7, and 12-31 under 35 U.S.C. § 102(b) as anticipated by Scherer.

We find that reversible error has been shown to exist in the rejection of claims 25 and 26 under 35 U.S.C. § 102(b) as anticipated by Crouse.

We conclude that reversible error has been shown to exist in the rejection of claims 5-8 and 11 under 35 U.S.C. § 103(a) as being unpatentable in view of either Snygg or Scherer.

DECISION

The decision of the Examiner to reject claims 14-18, 20-22, and 24 is affirmed. The decision of the Examiner to reject claims 1-13, 19, 23, and 25-31 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED-IN-PART

JRG

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